

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket No: 27581/01745

PATENT APPLICATION TRANSMITTAL UNDER 37 C.F.R. 1.53

Commissioner for Patents  
Box Patent Application  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing is the patent application of

Inventors: Richard H. Holtman, Mark S. Cavanagh

Title: METHOD AND APPARATUS FOR EXHAUST GAS RECIRCULATION COOLING  
USING A VORTEX TUBE TO COOL RECIRCULATED EXHAUST GASES

1. Type of Application

- ☒ This is a new application for a
- ☒ utility patent.
- ☐ design patent.
- ☐ This is a continuation-in-part application of prior application no.

2. Application Papers Enclosed

- 1 Title Page
- 7 Pages of Specification (excluding claims, abstract, and drawings)
- 4 Pages of Claims
- 1 Page of Abstract
- 2 Sheets of Drawings (Figs. 1 to 2)
- ☒ Formal
- ☐ Informal

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this Patent Application Transmittal and the documents referred to as enclosed therewith are being deposited with the United States Postal Service on October 31, 2003, in an envelope addressed to the Commissioner for Patents, Box Patent Application, P.O. Box 1450, Alexandria, VA 22313-1450 utilizing the "Express Mail Post Office to Addressee" service of the United States Postal Service under Mailing Label No. EV323780020US.

  
Richard Zimmermann



**3. Declaration or Oath**

- ☒ Enclosed
- ☒ Executed by (check all applicable boxes)
- ☒ Inventor(s)
- ☐ Legal representative of inventor(s)  
(37 CFR 1.42 or 1.43)
- ☐ Joint inventor or person showing a proprietary interest on behalf of  
inventor who refused to sign or cannot be reached
- ☐ The petition required by 37 CFR 1.47 and the statement  
required by 37 CFR 1.47 are enclosed. See Item 5D  
below for fee.
- ☐ Not enclosed - the undersigned attorney or agent is authorized to file this application  
on behalf of the applicant(s). An executed declaration will follow.

**4. Small Entity Status**

- ☐ Applicant claims small entity status. See 37 CFR 1.27.
- ☐ A small entity statement is(are) attached.

**5. Additional Papers Enclosed**

- ☐ Preliminary Amendment
- ☐ Information Disclosure Statement
- ☐ Declaration of Biological Deposit
- ☐ Computer readable copy of sequence listing containing nucleotide and/or amino  
acid sequence
- ☐ Microfiche computer program
- ☐ Associate Power of Attorney
- ☐ Verified translation of a non-English patent application
- ☐ An assignment of the invention
- ☐ Request and Certification Under 35 U.S.C. 122(b)(2)(B)(i)
- ☒ Return receipt postcard
- ☐ Other

6. **Priority Applications Under 35 USC 119**

Certified copies of applications from which priority under 35 USC 119 is claimed are listed below and

- ☐ are attached.  
☐ will follow.

COUNTRY	APPLICATION NO.	FILED

7. **Filing Fee Calculation (37 CFR 1.16)**

- A. ☒ **Utility Application**

CLAIMS AS FILED - INCLUDING PRELIMINARY AMENDMENT(S) (IF ANY)						
			SMALL ENTITY		OTHER THAN A SMALL ENTITY	
	NO. FILED	NO. EXTRA	RATE	FEE	RATE	FEE
BASIC FEE				\$385.00		\$770.00
TOTAL	21 - 20	= 1	X 9 =	\$	X 18 =	\$18.00
INDEP.	3 - 3	= 0	X 42 =	\$	X 86 =	
First Presentation of Multiple Dependent Claim			+ 140 =	\$	+ 290 =	
Filing Fee:				\$	OR	\$788.00

- B. ☐ **Design Application (\$165.00/\$330.00)**

Filing Fee:

- C. ☐ **Plant Application (\$255.00/\$510.00)**

Filing Fee:

- D. **Other Fees**

- ☐ Recording Assignment [Fee — \$40.00 per assignment]  
☐ Petition fee for filing by other than all the inventors  
or person on behalf of the inventor where inventor refused to sign  
or cannot be reached [Fee — \$130.00]  
☐ Other

**Total Fees Enclosed \$788.00**

**8. Method of Payment of Fees**

- ☒ Enclosed check in the amount of: \$788.00
- ☐ Charge Deposit Account No. 13-2855 in the amount of:  
A copy of this Transmittal is enclosed.
- ☐ Not enclosed

**9. Deposit Account and Refund Authorization**

The Commissioner is hereby authorized to charge any deficiency in the amount enclosed or any additional fees which may be required during the pendency of this application under 37 CFR 1.16 or 37 CFR 1.17 or under other applicable rules (except payment of issue fees), to Deposit Account No. 13-2855. A copy of this Transmittal is enclosed.

Please refund any overpayment to Marshall, Gerstein & Borun at the address below.

**10. Correspondence Address:**

Customer No. 04743

Respectfully submitted,

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By:



Gregory C. Mayer  
Reg. No. 38,238

October 31, 2003